

From St. Paul's to Peking by Rail.

BY THOMAS G. ALLEN, JUNR.

All about Russia's vast undertaking, which will render it possible to go from "St. Paul's to Peking by Rail." The interesting little curiosities to be witnessed on the works depicted by photos. and described by one who has travelled over the line.



From a Photo. by]

VIEW OF VLADIVOSTOCK, THE TERMINUS OF THE LINE.

[Mrs. Bishop.

I DON'T want to bother you with any dry, engineering descriptions or political dissertations on the value of the Trans-Siberian Railway, my object being merely to show you some extremely interesting pictures—photographs, to be precise—which I was fortunate enough to procure during my trip over the Trans-Siberian Railway in July, 1896. At that time the great railway was only open to general traffic as far as the Ob River—a distance of 882 miles, or 386 miles beyond the city of Omsk. However, by the favour of Prince Hillkoff, the Russian Minister of Ways and Communications, I was enabled to continue my railway journey beyond the Ob River as far as the city of Achinsk. The objective of what may be called the main line across Siberia is, of course, Vladivostock, on the Pacific. It is more or less well known, however, that surveys are being made from Kirin southward to the Pe-chi-li Gulf, in order to run a private line—sooner or later to be merged in the main system—to connect the present small Chinese railway that runs northward from Tien-tsin with the proposed route of the Trans-Siberian Railway through Manchuria to Vladivostock. Here, then, we have outlined the shortest possible main route between St. Petersburg and Peking. The length

of the Trans-Siberian Railway is calculated by a recent traveller to be 4,741 miles when fully completed, and the total cost of its construction will be about £34,700,000.

Our first photo. is a view of Vladivostock, the terminus of the Trans-Siberian main line. Very few photographs exist of this great naval port, for the Russians are extremely chary about letting foreigners run at large through its streets—particularly foreigners with cameras. This fine view of Vladivostock was taken by Mrs. Bishop, the well-known authority on the Far East.

The concession given by China to Russia, by which the latter country is enabled to make a short cut with its Siberian railway across Manchuria, is of tremendous importance, as the original route, which was to follow the course of the Amur River, was not only exceedingly difficult of negotiation, but went considerably out of the way. The Siberian railroad is being pushed forward most energetically, and the Russian engineers are already busily at work in surveying the country in Northern Manchuria. It is freely stated that as soon as the railway is open, the whole of that portion of Chinese territory north of the railway metals will be quietly annexed by the minions of the Czar. It is also reported that the country is extremely rich, both agriculturally and in minerals.



From a]

THE RAILWAY SURVEYORS AT WORK.

[Photo.

As reading, these facts may be neither light nor exhilarating, but they are absolutely necessary to a clear understanding of the colossal undertaking projected by Russia, and now being carried out with amazing pertinacity. The photo. at the top of this page shows how the actual surveying of the route is carried out. Here we see one of the principal architect-engineers of the railroad in the very act of surveying the country south of Irkutsk.

Quite recently a large number of Russian Cossacks have crossed the frontier in order to protect the surveying parties. There is an old saying in Russia, that once the Cossack gets into a new country one never knows when he is coming out again, and this lends some colour to the suggestion of the Russian absorption of Manchuria.

The accompanying photograph shows the method of embankment building adopted in the construction of the line. When the earth is thrown up, the sloping sides are lined with sod, and into this wooden pegs are driven at regular intervals, to insure firmness. Lastly, around the pegs willow branches are intertwined,

rendering it absolutely impossible for the earth to slide or collapse.

I well remember waking up one morning and rising from the pile of coverlets on the divan like seat of a Russian railway carriage. "Buck up!" roared somebody, with the brutal briskness characteristic of those who call one out of a sound sleep. "We're in Si-

beria." The magic name had the desired effect; I was wide awake in a moment. Although only three o'clock, the sun was already above the horizon, lighting up the eastern slopes of the Ural Mountains, which we had crossed in the night, and shedding a flood of glorious light over the boundless steppe. The flowery surface of the great plain was like an illimitable sea of red and yellow petals, waving in graceful undulations with the morning breeze. Anything more unlike the popular conception of Siberia it would be impossible to imagine. My reverie was interrupted by the entrance of the train conductor, announcing a change of



VIEW OF AN EMBANKMENT, SHOWING THE WILLOW TWIGS WHICH PREVENT THE EARTH FROM SLIPPING.

From a]

[Photo.

cars at Cheliabinsk. The through trains from Moscow, after traversing 1,360 miles at an average speed of sixteen miles an hour (!), stop at this place as the terminus of the European railway system, in order to connect with the present working section of the Trans-Siberian Railway.

Cheliabinsk being the "Europe and Asia Junction," one would naturally look for a big and important station. What did I find there? Why, a room measuring 30ft. by 40ft., which served as buffet, dining-room, luggage office, toilet chamber, and ticket department.

Disorder was rampant. Servants ran hither and thither with bundles and huge pillows, and frequently fell headlong over the luggage on the floor, or they collided with waiters bearing tea and other refreshments. Rattling dishes, crying babies, and angry shouts in various languages completed a perfect pandemonium. But no doubt, when the great railway is completed, more adequate provision will be made for passengers at Cheliabinsk. At present, however, that stopping-place seems quite a ridiculous travesty of a railway station in comparison with the magnificent and commodious structures on the lines in European Russia.

It is not often that employers err on the side of luxury in providing for their workmen. Here we see three of the wooden houses built by the authorities of the Trans-Siberian Railway for the native labourers engaged in the construction of the line. Curiously enough, however, these houses proved too modern and otherwise unsuitable for their primitive tastes; and the labourers stolidly refused to live in them. They preferred to erect rude buildings of their own, which, in the summer, may consist of a mere shelter of brambles gathered on the boundless steppe. The photo. here shown depicts just such a dwelling, belonging to a peasant employed on the

works. The man is evidently preparing dinners, and it will be seen that his cooking arrangements are as primitive as the habitation itself.

But to return to Cheliabinsk, the real starting-point of the great railway. On the occasion of my visit, all tickets were sold from an ordinary table in one corner of the room. When the gentleman who presided at this improvised "booking office" announced that he was ready to commence issuing tickets, there was such a tremendous rush in that direction

that he ran some danger of being flattened against the wall, and the railway's exchequer upset on the dirty floor.

The present rate of first-class fares on the Trans-Siberian Railway averages a little less than 1½d. per mile. The more humble third-class travellers pay rather less than ½d. per mile. I was informed,

however, that this is merely a temporary tariff. When the line is completed and fully equipped, the European Zone Tariff System will be introduced, and this should reduce the cost of travelling in Siberia—the "Land of Distances"—to a mere trifle.

The train in which I left Cheliabinsk was made up of first, second, and third class carriages—as in European Russia; but there was an additional fourth class provided. This consisted merely of ordinary goods-trucks fitted up with rough plank benches. Each of these trucks bore the following interesting notice: "Capacity—Forty men *or* eight horses!"

Poor Siberians. They are not exactly reared in the lap of luxury! Look at the other dwelling belonging to one of the native railway employés. It is simply a hut made out of an overturned *telega*, or peasant waggon; the crevices are stopped with brushwood.

Very little, if any, effort has yet been made to encourage traffic over the present completed portion of the Trans-



From a] WOODEN HOUSES BUILT FOR THE WORKMEN. [Photo.



From a] WHAT THE WORKMEN PREFERRED INSTEAD. [Photo.



From a] HUT MADE OUT OF AN OVERTURNED WAGGON.

[Photo.

Siberian Railway. In the first place, there is a certain amount of risk involved in the unsettled road-bed. And then, again, the tardy fulfilment of orders for rolling-stock has caused a scarcity of transport—even transport of the very materials of construction. No wonder, then, that the two passenger trains which are run weekly should be filled to overflowing! Besides these, there are many “specials” run, laden with Siberian immigrants.

One of the most interesting sights I beheld during my trip over the line is seen in the next photo. reproduced. The illustration is remarkable from the fact that it shows side by side the newest and the oldest method of transport of merchandise—the railway train of the nineteenth century, and the quaint camel caravan, such as has been in vogue for many hundreds of years in

desert countries. The photo. was taken at Kurgan on the Trans-Siberian railroad on the arrival of a camel caravan with supplies and stores from the desert steppes of Kara-Kum, in Central Asia. The civilizing influence of the railroad, however, is rapidly doing away with the utility of the historical and picturesque “Ship of the Desert”; and those long trains of caravans which for centuries have brought the merchandise of the East to the markets of the West will soon be unknown, when the network of railway lines has completely spread its meshes in every direction.

Two things there are which obtrude themselves disagreeably on passengers by the Trans-Siberian Railway. These are: (1) the absence of drinking-water; and (2) the presence of flies. The ordinary Russian seldom drinks water, so I suppose the supply is regulated by the demand. At all events, when I asked for a glass of water *en route*, the attendant betrayed aggravating symptoms of astonishment; and when at length he *did* bring it, the glass was only half full. I was rather afraid to ask for more, lest the man should think me a lunatic.

The scarcity of decent water along the Trans-Siberian Railway is further increased by the fact that over a great portion of the line, from Petropaulovsk to the Ob Valley, where the railway skirts the northern edge of the Central Asiatic Steppe, the station wells are strongly impregnated with saline matter, even at a depth of 900ft.



From a]

“THE NEW AND THE OLD”—CAMEL CARAVAN BRINGING MATERIAL FOR THE RAILWAY

[Photo.

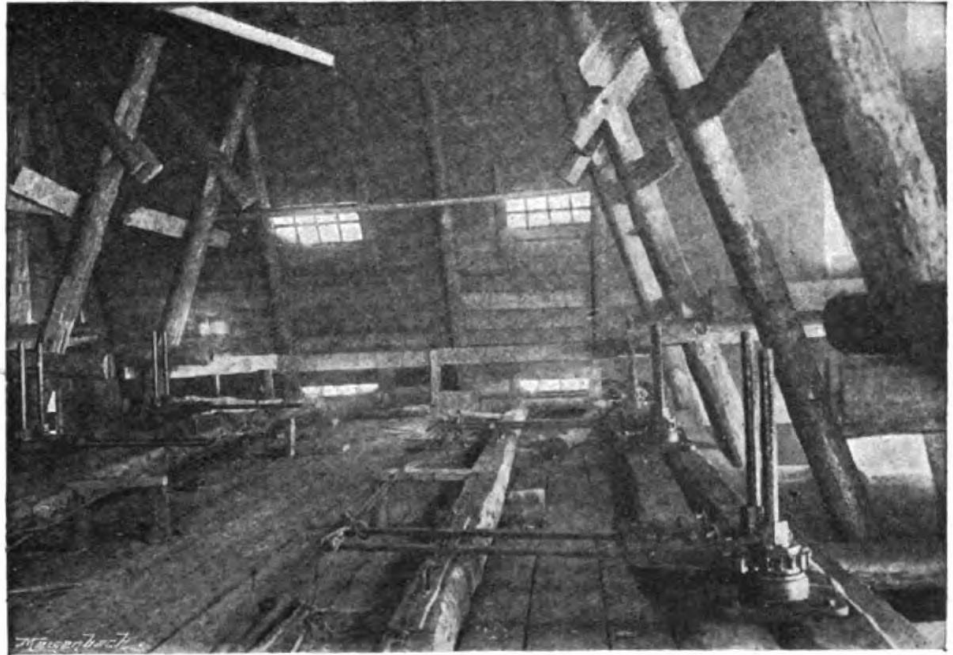
Then come the flies, which, in the quagmire districts of the railway, come forth in swarms to act as the day relief-corps to the bloodthirsty mosquitoes which make the night intolerable. I have seen in the train a Russian baby sleeping peacefully, although so smothered in flies that even the poor little thing's happy smile was outlined in these abominable and exasperating insects. At several stations the flies positively obscured the light from the windows, and contested with us (too often successfully) the right to our own dinner. The unfortunate workmen on the line are therefore to be pitied. As you may imagine, the construction of the Trans-Siberian Railway is carried on under enormous difficulties—particularly in winter. Here is shown the interior of one of the temporary sheds erected over a bridge-pier on the great railway, solely in order that work may be carried on during the terribly rigorous winter. In this season, the big stones become so intensely cold that everything freezes which comes into contact with them. In this way, then, by erecting over the works such temporary sheds as the one seen in the picture, the construction of the bridge can be carried on in a specially heated atmosphere.

Yet another instance of the obstacles to be encountered. The photo. here shown depicts some of the heated water-tank cars, which are used during the winter to keep the drinking water from freezing, and thus becoming useless to the many thousands of workmen. All other water is frozen solid by the intense cold.

Unfortunately for Trans-Siberian passengers at the present time, the engines are taken from the obsolete rolling-stock of European Russia. No doubt,

suitably powerful locomotives will in the fulness of time be placed on the railway.

Two of these engines were required to draw our train over the perfectly level steppe. The driver stopped constantly, either to pump up water from some wayside stream (the water-



INTERIOR OF SHED ERECTED OVER WORKS TO PROTECT THE MEN FROM THE INTENSE COLD.

From a Photo.

tanks at the stations being as yet unfinished), or else to fill the tender from the piles of fire-wood prepared along the line. Everything was conducted in a free and easy manner, which was interesting enough, providing you were not in a hurry.

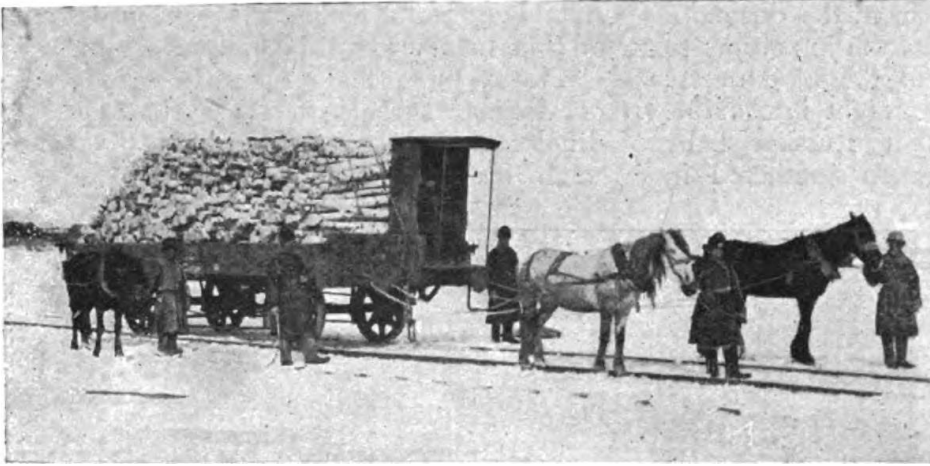
From Omsk to the Ob River, the schedule rate of speed laid down for my train was fourteen miles an hour, including stops. Actually, however, we made but ten miles, and before reaching the partially-finished section of the line to Achinks we were barely covering four miles in the hour.

One day we came to a standstill in the middle of the steppe, on account of an over-heated piston-rod. On this occasion there was a wait of two hours for repairs. It was a warm, bright afternoon, however, so all the passengers left the train, and were soon picnicking in groups.



HEATED WATER-TANK CARS. (THE WATER IS KEPT IN THESE SO THAT IT MAY NOT FREEZE.)

[Photo.]



AN EXPERIMENT—BRINGING A LOADED TRUCK OVER THE RIVER IRTISH ON THE ICE.
From a Photo.

among the beautiful flowers. When at last the engine whistled as a signal that the driver was ready to start, those on the far-windward side couldn't hear it, consequently the conductor had to dart here and there excitedly to gather in his flock.

In the absence of brakes of any sort, all trains on the Trans-Siberian Railway begin to arrive, so to speak, at a station a mile before they reach it. Even more time is wasted in getting up speed again. They are very careful, these Russians. Although steam power is conspicuous only by its absence from the scene of construction, all work is most carefully examined and supervised by Government officials.

Before the great bridge over the Irtish River was completed, the idea was conceived of taking railway carriages across on the thickly-frozen ice of the river. Rails were carefully laid down, and one freight car, loaded with wood and drawn by a team of horses, was sent over cautiously as a test. This went across the frozen river without the least sign of the ice cracking. Indeed, the car stopped half-way, in order that the photo., here reproduced, might be taken by one of the officials.

A still more novel engineering feat, however, is seen in the last photo. reproduced, which shows one of the trains crossing a river on the ice!

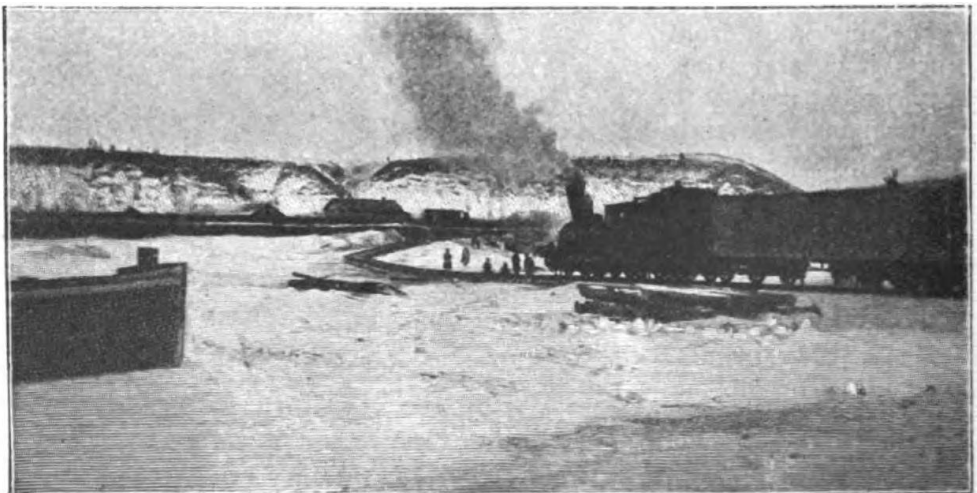
The completion of the Trans-Siberian railroad, which will probably occur in the year 1901, is eagerly awaited by enterprising Russians. At the present time, the rails have been laid as far as Irkutsk, the capital of Eastern Siberia,

close to the famous Lake Baikal. Across the Siberian Steppes, from the Ural Mountain range to Tomsk, the construction of the railroad was not attended by any great difficulties. Eastward of Tomsk, however, an extremely mountainous country had to be traversed, while the enormous rivers of Siberia rendered the engineering difficulties very great. Several of the bridges across the big rivers are not yet completed, so that in the summer the

passengers and goods have to be ferried across the rivers. In winter, however, Nature has been kind to the engineers of the Siberian railroad, for in freezing the surface of the rivers to a great depth, she has provided a natural bridge almost as effective in its way as the artificial one.

The experiment of running a train over the frozen rivers was tried two years ago on the Ob with every success, and last year the regular mail trains crossed the River Chulim on the ice daily. Some idea of the enormous thickness and strength of the ice may be gathered from the fact that several trains, consisting of a locomotive and eighteen to twenty carriages, the whole totalling many hundreds of tons, have crossed the river without the slightest mishap.

As soon as the ice is of proper bearing thickness, sleepers, or ties, are laid on the surface, and water is thrown on them, which, freezing instantaneously, fixes them to the ice as firmly as, if not more firmly than, the ties are fixed on the ordinary road-bed. The metals are then bolted on the ties in the usual manner, and everything is ready for the passage of the train.



From a

MAIL TRAIN CROSSING THE RIVER CHULIM ON THE ICE.

[Photo.]